

# BELZONA CRUISE SHIP CENTRIFUGAL PUMP

ID: 56

Industry: Marine

Customer Location: Italian Cruise Ship in a Southern California Shipyard, U.S.A.

Application: CEP-Centrifugal Pumps

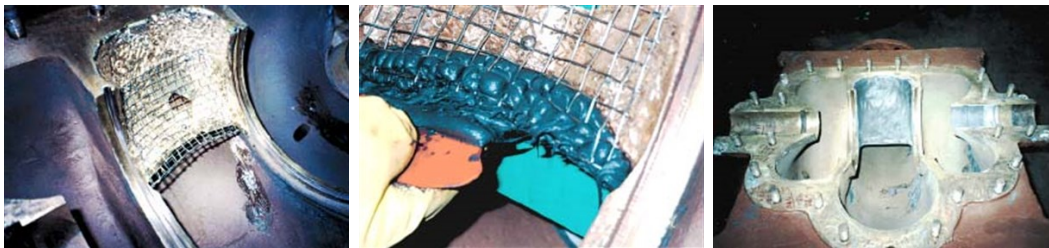
Application Date: December 1996

Substrate: Bronze

Products: \* Belzona® 1311 (Ceramic R-Metal) ,  
\* Belzona® 9411 (Release Agent) ,

## Problem

Severe erosion/corrosion damage, evidenced by more than a dozen small holes, and one large hole completely through the casing as well as a loss of up to two inches of the cutwater. The wear ring seats were also eroded in the same area.



## Photograph Descriptions

- \* The pump casing and cutwater after blasting and fitting with expanded metal mesh. Note the hole at the center of the cutwater. ,
- \* Belzona® 1311 (Ceramic R-Metal) being pressed through the mesh and into the surface profile of the bronze. ,
- \* The finished application. Repaired cutwater edge and casing holes. The seal area and rebuilt seating groove is on the right. ,

## Application Situation

Main circulating water centrifugal pump

## Application Method

Application was carried out in accordance with modified versions of Belzona Know-How Leaflets CEP-1, CEP-2, and CEP-6.

## Belzona Facts

The ship was in process of being sold and without this quick repair (completed over a weekend), the multi-million dollar sale would have been cancelled. Replacement costs were approximately \$10,000, with extensive downtime.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

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